

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK

GEM HOLDCO, LLC, GEM VENTURES, LTD.,
GLOBAL EMERGING MARKETS NORTH
AMERICA, INC., CHRISTOPHER BROWN,
EDWARD TOBIN, and DEMETRIOS DIAKOLIOS,

Plaintiffs,

-against-

CHANGING WORLD TECHNOLOGIES, L.P., CWT
CANADA II LIMITED PARTNERSHIP, RESOURCE
RECOVERY CORPORATION, JEAN NOELTING,
RIDGELINE ENERGY SERVICES, INC., DENNIS
DANZIK, BRUCE A. MACFARLANE, TONY KER,
RICHARD CARRIGAN, DOUGLAS JOHNSON, and
KELLY SLEDZ,

Defendants.

Index No. 650841/2013

Justice Shirley W. Kornreich

Mot. Seq. No. 010

CWT CANADA II LIMITED PARTNERSHIP,
RESOURCE RECOVERY CORPORATION and JEAN
NOELTING,

Third-Party Plaintiffs,

-against-

CHRISTOPHER BROWN, EDWARD
TOBIN, RES MANAGEMENT, INC.,
ELIZABETH DANZIK and DEJA II, LLC.

Third-Party Defendants.

**AFFIDAVIT OF JOHN R. K. SHAW
IN OPPOSITION TO THE CROSS-CLAIMANTS' MOTION FOR PRELIMINARY
INJUNCTION, OR IN THE ALTERNATIVE AN ATTACHMENT, AND FOR
EXPEDITED DISCOVERY**

COUNTY OF JASPER)
) ss.:
STATE OF MISSOURI)

JOHN R. K. SHAW, being duly sworn, deposes and says:

1. I am the Operations Manager at RDX Technologies Corporation's Refinery in Carthage, Missouri (the "Refinery"). I submit this Affidavit in opposition to the Cross-Claimants' Motion for Preliminary Injunction, or in the Alternative an Attachment, and for Expedited Discovery. The facts attested to herein are based upon my own personal knowledge and if called upon to testify about them I could and would be competently able to do so.

Changing World Technology's Operations in 2002-2009

2. I first started work at the Refinery in 2002 as a process technician, and was promoted to team leader approximately one month later. In late 2003 / early 2004, I was promoted to Logistics Manager, and in late 2005 / early 2006 I was promoted to my current role of Operations Manager at the Carthage Refinery.

3. The Carthage facility was built by Changing World Technology ("CWT"), and was a refinery based upon a smaller test system built at CWT's laboratory in Philadelphia. Construction of the Refinery was completed in 2002, and the plant became operational in 2003-2004. At that time, our principal feedstock was waste parts from a nearby turkey processing plant, otherwise known as offal. Our plant would grind the offal into a paste, which would then be fed into the machinery to undergo a Thermal Depolymerization Process ("TDP").

4. As Operations Manager I was responsible for ensuring the facility followed the recipe for renewable diesel as laid out by the chemists and engineers in Changing World Technology's management. My understanding of the science of TDP came primarily from Brian Appel, who was the company's founder and Chief Executive Officer, and Jim Freiss, who was the company's Chief Operating Officer, informally titled CWT's Engineer, and Don Sanders who was the original Plant Manager of the Carthage refinery.

5. Management described TDP as “what Mother Nature did to the dinosaurs.” They would distribute materials to Refinery employees describing the process. *See* Ex. 1, one such pamphlet distributed in 2010. As described by management, the combined effects of time, temperature and pressure would break down the feedstock and transform it into “renewable diesel oil” (“RDO”) in the same way that the earth broke down and transformed the bodies of ancient creatures into regular fossil fuels. This chemical conversion supposedly took place in the Refinery’s principal reactor, designated R-250. The end result of the TDP process was supposedly “renewable diesel oil.”

6. When the Refinery first started operating, we had difficulty selling the finished product because it was a new source of fuel and did not have any independent certifications. As a result, management decided to have the product certified. Two certifications were particularly important. The first was ASTM D396 certification, which would show that the product could be used in boiler systems. The second was air emissions certification, which would show that the fuel could be burned without violating environmental regulations.

7. ASTM International (formerly the American Society for Testing and Materials) is an organization that sets testing standards for various industries. They have two standards for diesel fuel. One, D975, is for fuel used in transportation. The other, D396, is for fuel used in boiler systems. Since we sold the Carthage product to be used as heating oil, D396 was the relevant standard. Changing World Technologies’ customer contracts generally specified that our fuel would meet the D396 standard. *See, e.g.*, Exhibit 2, one such Sales Contract. The D396 standard sets forth five different “grades” of diesel fuel oil. Grades #1 and #2 consist of shorter hydrocarbon chains, and are liquid at room temperature. Both have “low sulfur” variants. Grades # 5 and 6 consist of longer hydrocarbon chains, are thicker, and require pre-heating

heating systems for use in boilers. Grade # 4 is an intermediate grade. Grades # 4 and #5 have “light” (less viscous) and “heavy” (more viscous) variants. We generally sold the Refinery’s product as a replacement for #5 or #6 oil. *See, e.g.*, Ex. 3, June 6, 2012 Invoice to Erving Industries Inc.

8. Emissions (or “stack”) testing is necessary to show that a fuel, when burnt, will not generate excessive air pollution, which could violate the Clean Air Act or other environmental laws. Changing World Technologies sent samples to Brookhaven National Laboratory for emissions testing.

9. One of my duties as Operations Manager was taking samples of the Refinery’s product. My understanding at the time was that these samples would be sent directly to independent testing organizations, such as Atlantic Product Services (“APS”) and Brookhaven National Laboratory.

10. Changing World Technologies was not financially successful, and filed for bankruptcy in 2009. The Refinery was shut down while management sought new sources of funding. During this time the plant local management went through and updated the Standard Operating Procedures (SOP) and process overviews while maintaining plant security. No product was manufactured.

Changing World Technology’s Operations in 2010-2012

11. When manufacturing operations started back up in 2010, I was retained as Operations Manager. After the restart, the Refinery switched to a new feedstock. Instead of using turkey offal, the company would use waste grease – generally known as “yellow” and “brown” grease. This had the advantage of requiring less processing, because the grease did not need to be ground up and turned into a paste prior to undergoing the TDP process.

12. During 2010-2012, the manufacturing process was altered in a number of ways. One change was that we started adding more sulfuric acid. Another change was that we lowered the temperatures and pressures in the main reactor, R-250. A third change was that we removed certain equipment from inside R-250, which meant that the grease spent less time in the main reactor. Jim Freiss told me that these changes to the process still produced the same end result: Renewable diesel.

13. At some point after restarting the facility, management began marketing the Refinery's product as being manufactured using a Thermal Conversion Process, or "TCP," rather than the previously advertised Thermal Depolymerization Process, TDP.

14. During the 2010-2012 period, management would stress that the company had three main revenue streams. The first was the money paid by customers for the refinery's product. The second was government tax credits available for the production of renewable fuels. The tax credit was usually one dollar per gallon of fuel produced, though the credit lapsed at the end of 2011 and wasn't reinstated until 2013. The third revenue stream was the sale of Renewable Identification Numbers (RINs). RINs were numbers that were assigned to the producers of renewable fuel under an EPA program. These could then be sold to companies that were required to use renewable fuel.

15. Both tax credits and RINs required some form of government authorization. I was not involved in obtaining the authorization, but according to Brian Appel, Jim Freiss, and other managers, we had the correct authorizations, and our product qualified for both tax credits and RINs. One part of my job was signing "Certificates of Renewable Diesel." These were forms stating that each batch of our product was "diesel fuel derived from biomass. . . which meets the registration requirements for fuels and fuel additives established by EPA under § 211

of the Clean Air Act (42 U.S.C. §7545), and the requirements of the American Society for Testing and Materials D975 or D396.” These Certificates were necessary to claim renewable diesel tax credits. At some point in 2010, the responsibility for signing these forms was taken over by another employee, Jason Parnell.

16. For each batch, my understanding was that a product sample taken at the plant was sent to an independent laboratory. The independent laboratory would then send back a Certificate of Analysis outlining key characteristics of the product. *See, e.g.*, Ex. 4, one such Certificate of Analysis. Jim Freiss, Brian Appel, and other managers told me that these Certificates of Analysis proved that our product met the specifications of ASTM D396, and so was eligible for tax credits and RINs.

17. Despite its revenue from product sales, tax credits and RINs, Changing World Technologies continued to lose money throughout the 2010-2012 period. In December 2012, the company was in a severe financial difficulty. Management turned to a company named GEM for funding, and GEM invited Dennis Danzik to manage the Refinery in an effort to turn the company around.

Changing World Technology’s Operations from 2013 Onwards

18. For the first few months, Danzik was focused on making Changing World Technologies profitable. This involved cutting costs in a variety of areas, including pay cuts, staffing cuts and the closing of Changing World Technology’s lab in Philadelphia. The manufacturing process at the Refinery remained unchanged.

19. It is unfair and untrue to suggest that Danzik mismanaged the Refinery. The CWT Defendants are taking my September 2013 resignation letter out of context. An inner seal had broken in September 2013, just days before my letter. The plant manager originally

intended to delay repairs. I felt that was the wrong decision, and I made that plain in my letter. The seal was then fixed. Similarly, I was concerned that shifts were too small. Management added an additional person. Danzik personally invited me to return to work for RDX two weeks after my resignation. I accepted that offer because I felt he was an effective manager and my concerns were being met. I have continued to work for RDX ever since.

20. Several customers experienced problems with their fuel systems in 2013, and I made three visits to customer facilities to try and solve these problems. For example, Erving Paper Company had consistent problems with moisture and corrosion in their fuel system. Omega Proteins, another customer, had problems with an exchanger that ended up spraying our product across the room. We paid for repairs to our customer's systems, and I was personally involved in fixing the fuel systems of three companies: Erving Paper Company, Omega Proteins, and APAC (an asphalt company).

21. As a result of these customer issues, Danzik brought in an outside auditing company, Genscape, to investigate the product. In mid-to-late 2013, I sat in on a phone call in which a Genscape employee stated that the Refinery's product did not meet ASTM specifications and so did not qualify for tax credits and RINs. I was surprised. As I understood it, Changing World Technologies had authorizations from the government stating that our product qualified. We had testing by independent laboratories. We had not changed our manufacturing process.

22. In early 2014, I attended a meeting in Scottsdale Arizona where I learned that, prior to being shut down by Danzik, CWT's Philadelphia lab had been doctoring fuel samples. Carthage samples had been further filtered, acid-treated, centrifuged and dehydrated, and combined with (or entirely replaced by) output from the Philadelphia lab's own reactor. These

samples were falsely submitted to Brookhaven National Laboratory as representative of the Refinery's product.

23. Given this information, I personally conducted further testing. I took samples of the brown grease feedstock, and samples of the Refinery's end product. I conducted tests on three measures: Fat content, acidity, and British Thermal Unit ("BTU") value. BTUs are a measure of how much heat is produced when you burn a fuel. I reasoned that, if the fuel was being converted from grease into renewable diesel, there should be a change in fat content and BTU value. There was not. The grease going in and the product coming out had exactly the same fat content and BTU value. The only thing that changed was the acidity, because we add sulfuric acid during the manufacturing process. It appears that that there was no chemical conversion taking place at all.

24. Based on what I know now, I do not believe that the Refinery's product qualified for RINs and tax credits. The information I relied upon in certifying the product was simply not true.

Sworn to before me this 16th
day of January 2015

Barbara Hunter
Notary Public

My Commission Expires
8-17-2012

John R. K. Shaw
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